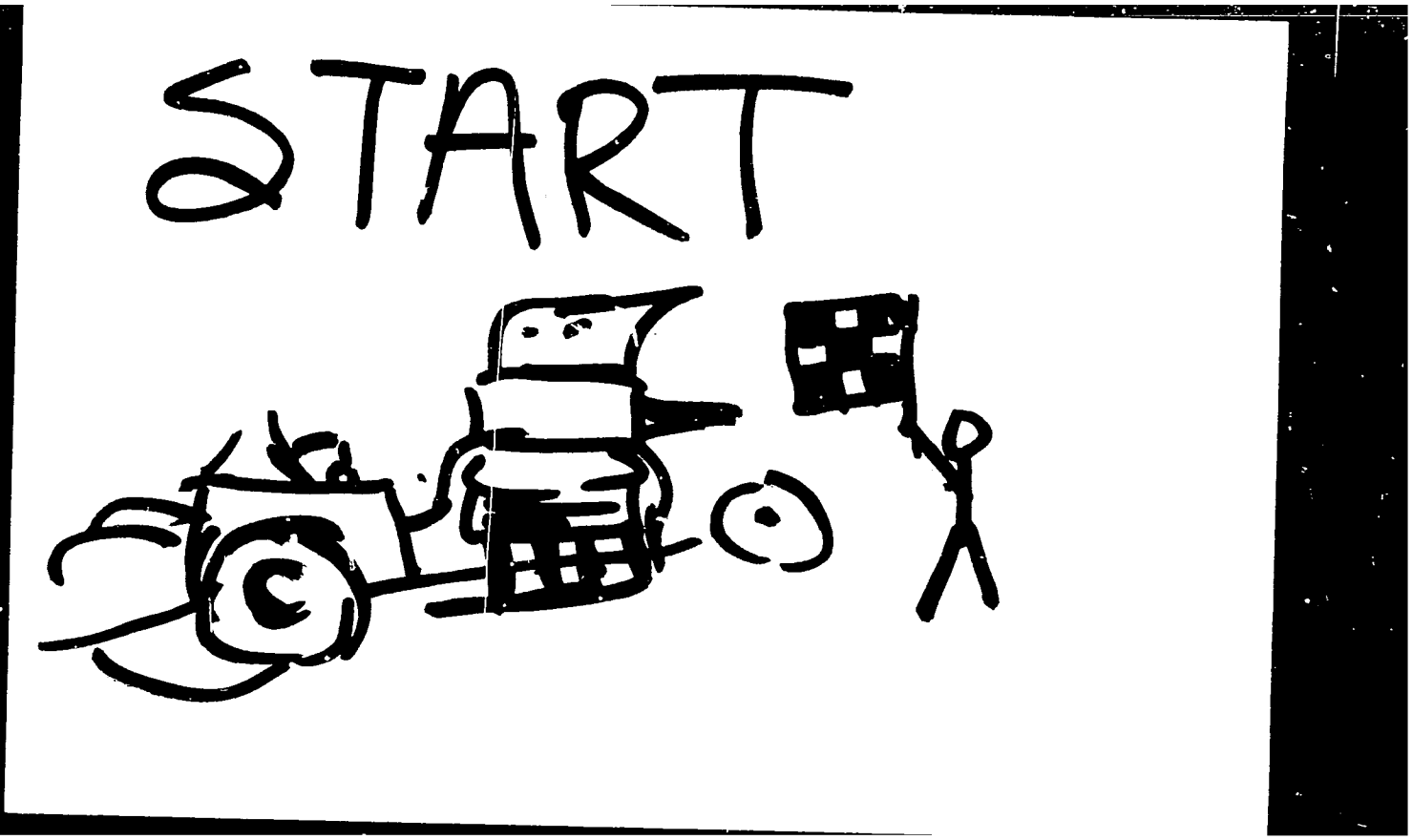

REEL #86

CHERNOV, V. P.

to

CHERNOV, V. P.

"Jointed Connection for Cable Conveyor Wire," Torf. Prom., 29, No. 9, 1952

CHERNOV, V.P.; MARYSHEV, A.N., polkovnik, redaktor; SOKOLOVA, G.F., tekhnicheskiy redaktor

[Artillery weapons] Artilleriiskoe orudie. Moskva, Voen. izd-vo Voen. Ministerstva Soiuza SSR, 1953. 117 p. (MLRA 7:10)
(Artillery)

KICHKA, Vasiliy Yerastovich; CHERNOV, V.P., inzh.-polkovnik, red.; SLEPTSOVA, Ye.N., tekhn. red.

[Infrared rays in military affairs]Infrakrasnye luchi v voennom dele. Moskva, Voenizdat, 1962. 175 p. (MIRA 15:9)
(Infrared rays--Military applications)

KOROVKIN, Aleksandr Sergeyevich; CHERNOV, V.P., inzh.-polkovnik, red.; SRIBNIS, N.V., tekhn. red.

[Infrared technology] Infrakrasnaia tekhnika. Moskva, Voenizdat, 1963. 71 p. (MIRA 16:8)
(Infrared rays--Military applications)

CHERNOV, V.P.

Typical Podzolic soils in Perm Province formed on topsoil and moraine loams. Pochvovedenie no.3:1-12 Mr '65.

(MIRA 18:6)

1. Permskiy sel'skokhozyaystvennyy institut imeni Pryanishnikova.

SOV/96-59-10-11/22

AUTHOR: Chernov, V.S. (Engineer)

TITLE: Design Problems of Demineralising Installations

PERIODICAL: Teploenergetika, 1959, Nr 10, pp 60-66 (USSR)

ABSTRACT: In view of the latest requirements in respect of feed-water quality and boiler blow-down, it is practically essential to use demineralisation installations for feed-water purification. Two examples to illustrate this point are given. In 1956 the Khar'kov division of Teploelektroproyekt developed typical designs for demineralising installations with outputs of 500, 1000 and 1500 tons per hour. The equipment was intended for purifying make-up water for drum-type boilers operating at pressures of 100-180 atms. Properties of the three types of raw water considered are given in Table 1. The general principles adopted were: coagulation on mechanical filters; H-cation treatment; demineralising with low-base anionites and decarbonisation; second-stage H-cation treatment and demineralising with high-base anionites. The ionites selected were: low-base anionite grade AN-2F, high-base anionite of grade EDE-10P and cationite sulpho-carbon grade K. Some information is given about the types of equipment used. Working drawings were prepared

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Design Problems of Demineralising Installations

only for the 500 ton per hour installation working on Moscow river water. Minor modifications were required for each particular case. In 1957 a typical design was prepared for water-purifying installations for a station of 1200 MW equipped with once-through boilers. The station was assumed to have either a PVK-200 or a SVK-200 turbo-alternator operated as a unit with once-through boilers each of 640 tone per hour output. Three types of water purification equipment were proposed depending upon the properties of the raw water available, and brief details of each are given. The general principles were the same as before except that demineralisation with high-base anionite was followed by a third stage of H-cation treatment and demineralisation with low-base anionite regenerated with ammonia. The assumptions made in calculating the necessary output of the water purifying installation are stated. During the process of developing demineralising installations considerable improvements were made in the circuits and arrangements for automatic control. Fig 1 shows a schematic circuit diagram of a water purification installation for drum-type

Design Problems of Demineralising Installations

boilers such as are now being built in power stations. In this circuit the water is coagulated and clarified in clarifiers type TsNII-2 without subsequent filtration on mechanical filters. Fig 2 gives a schematic diagram of the method of measuring coagulant and sodium hydroxide in a clarifier using an acid-resisting plunger-type pump. Fig 3 shows the schematic circuit diagram of the method of automatic control of the whole process of regeneration of the H-cationite filter and also of drawing sulphuric acid into the installation tanks from railway tankers. Fig 4 shows a schematic circuit diagram for automatic control of the entire process of regenerating anionite filters of the first and second stages. The operation of this system is briefly described. The available anionite is of poor quality and requires large quantities of alkali and washing water, and so the circuits are rather complicated and may be difficult to operate. Much simpler circuits can be used if the anionite quality is improved. Fig 5 shows a schematic circuit diagram of the method of neutralising acid water in tanks by alkali water used for regeneration of the anionite filters. The output of the water purification plant will be automatically controlled

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using the schematic circuit diagram given in Fig 6. This is briefly described. A good deal of the equipment used in the water-treating plants will be of standard manufacture, but as not all of the necessary equipment is yet regularly manufactured some will have to be made up on site, including the clarifiers, decarbonisers, hydro-elevators, tanks and some other parts. A schematic circuit diagram of an automatic water purification installation is given in Fig 7; the operating principles are briefly described. Acid-resisting coatings are used to protect metal parts of the equipment and piping. These include perchlorvynil lacquers, bakelite compositions, polyisobutylenes and other special materials. Use is made of polyvinyl chloride pipes with fittings of stainless steel. Schematic layouts of water purification installations are given in Figs 8 and 9. They provide for easy extension of the filter room. Other details of the

Design Problems of Demineralising Installations

proposed arrangement are briefly discussed. Cost data for the various proposed installations are given in Table 2.
There are 9 figures, 2 tables, no references.

ASSOCIATION: Teploelektroproyekt, Khar'kovskoye otdeleniye (The Teploelektroproyekt Khar'kov Division)

CHERNOV, V.S.

Practices in the elimination of trichomoniasis in cows. Veterinariia 38 no.4:43-44 Ap '61 (MIRA 14:4)

1. Zaveduyushchiy Troyanskim veterinarnym uchastkom Golovanevskogo rayona, Kirovogradskoy oblasti.

KHARLAMOV, M.G.; CHERNOV, V.Ya.

Isolation of the Vishnevskii intrusive complex in the Selety-Shiderty region of central Kazakhstan. Trudy VSEGEI 74:147-170 '62. (MIRA 15:9)
(Kazakhstan--Rocks, Igneous)

POKROVSKAYA, G.V.; CHERNOV, Vasiliy Stepanovich; STUKOVNIN, N.D., red.

[Organic chemistry] Organicheskaia khimiia. Moskva, Vysshaia shkola, 1963. 217 p. (MIRA 17:4)

KUPLYAYEV, I.M. (Leningrad, B. Pushkarskaya ul. d. 30., kv.27); IVLIYEV, N.N. (Gor'kiy, ul. Radistov, d.6, kv.6); CHERNOV, Ya.G. (Gor'kiy, ul. Radistov, d. 6, kv.6); PISAREV, A.L. (Moskva, Lyubertsy, 4. pos. Vsesoyuznogo nauchno-issledovatel'skogo ugol'nogo instituta, d.5, kv.5); GASPAROV, R.G. (Moskva, I-51, 2-y Sobovskiy pereulok d.9/2 kv.18); POPOV, B.I. (Irkutsk, 13, Depovski pereulok, d.83, kv.2); PIONTKOVSKIY, B.A. (Moskva, Ye-77, Sredne-Pervomayskaya ul. d.13, kv.4); VEDENEYEV, G.M. (Moskva, I-110, B. Spasskaya, d. 15/17, kv.29); KRECHER, V.G. (Uzhgorod, Zakarpatskaya obl., ul. Kosmodem'yanskoy, d.4, kv.69); SIDORENKO, A.P. (Leningrad, ul. Frunze, d.15, kv.38); SPIRIDONOV, A.V. (Leningrad, ul. Frunze, d.15, kv.38); SEREDA, P.A. (Moskva); IL'IN, V.F.; PEL'TSMAN, L.N.; DANILEVICH, A.I. (Khar'kov, Plekhanovskiy pereulok, d.9a, kv.2); KHIMENKO, L.T. (Khar'kov, Plekhanovskiy pereulok, d.92, kv.2); LYKOV, M.V. (Moskva, Leninskiy prospekt, d.55); RYBAL'CHENKO, G.F. (Moskva, Leninskiy prospekt, d.55); BOYKO, V.F. (Leningrad, M-142, ul. Tipanova, d.3, kv.130); KITAYEV, G.I. (Chelyabinsk, Smolenskaya ul. d.4); SKLYAROV, A.Ye. (Novocherkassk, Rostovskoy obl. pos. Oktyabr'skiy, Gvardeyskaya ul. d.30, kv.29)

Discoveries and inventions. Prom. energ. 19 no.11:57-58 N '64. (MIRA 18:1)

1. Zavod "Amurkabel'", Khabarovsk (for Il'in, Pel'tsman).

L 8640-65 EWT(m)/EWP(b) APETR/ESD(gs)/APWL/SSD/ASD(a)-5/RAEM(t) JD/JG

ACCESSION NR: AP4043941 S/0181/64/006/009/2700/2702

AUTHOR: Kagan, M. B.; Landsman, A. P.; Chernov, Ya. I. B

TITLE: Some photoelectric properties of p-n junctions in the GaP-GaAs system

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2700-2702

TOPIC TAGS: photocell, solar battery, gallium arsenide phosphide, carrier mobility, sensitivity increase, forbidden band

ABSTRACT: The purpose of the research was to increase the sensitivity of photocells for the conversion of solar energy into electricity. The photoelectric properties studied were the spectral distribution of the short-circuit photocurrent and the temperature dependences of the short-circuit photocurrent and of the no-load voltage (see Enclosure). The tests were made in the interval 0.40—0.55 μ and the tested photocell was prepared by producing a layer of GaP on the surface of a GaAs plate by diffusion annealing in phosphorus vapor, followed by production of a p-n junction with subsequent diffusion of

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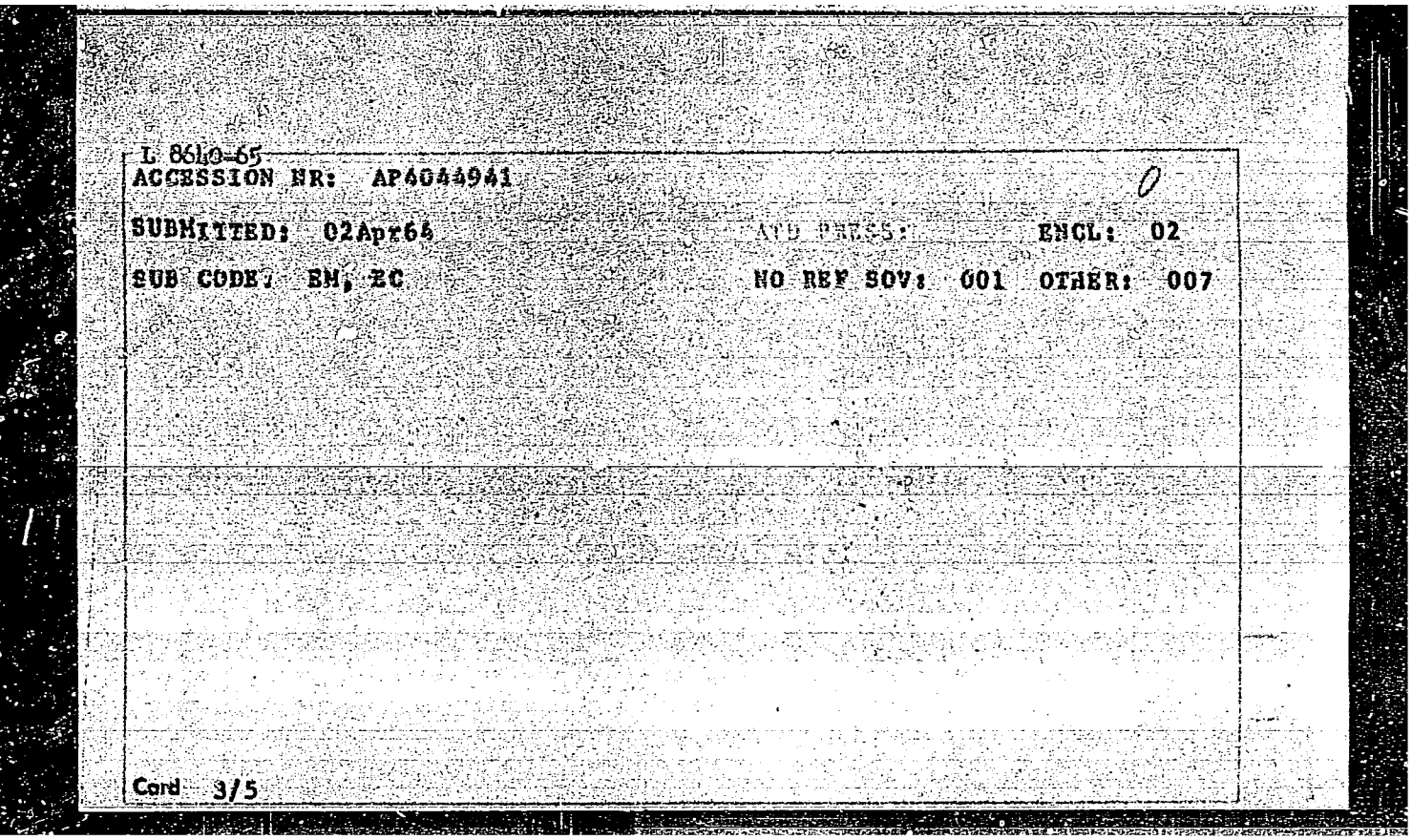
L 8610-65
ACCESSION NR: AP4044941

zinc. The initial material was a GaAs single crystal with electron density (2--4) $\times 10^{17}$ cm^{-3} and mobility ~3000 $cm^2/v\text{-}sec$. The results have shown that a system constituting a surface layer of GaP, a thin region with variable width of the forbidden band, and a basic layer of GaAs, has a greater sensitivity in the short-wave portion of the spectrum than Si or GaAs p-n junctions. The tests have also shown that the spectral sensitivity can be varied by varying the depth of the p-n junction. The thickness of the GaP layer together with the region of variable composition, in which the width of the forbidden band varied at room temperature from E_1 = 2.25 ev (GaP) to E_2 = 1.35 ev (GaS), was 5--7 microns. The advantages of the described photocells are due to the variable-composition region and to the fact that one of the active regions of the p-n junction (GaP) is a semiconductor with a broad forbidden band. Orig. art. has: 2 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka, Moscow (All-Union Scientific Research Institute of Current Sources)

Card 2/3



L 8610-65
ACCESSION NR: AP4044941 0

SUBMITTED: 02Apr64 ATD PRESS: ENCL: 02

SUB CODE: EM, EC NO REF SOV: 001 OTHER: 007

Card 3/5

L 8640-65
ACCESSION NR: AP4044941

ENCLOSURE: 01

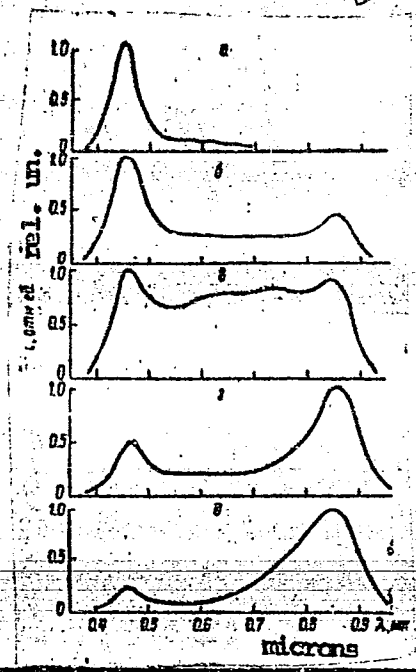


Fig. 1. Spectral distribution of short-circuit photocurrent for photocells with different depth of the p-n junction

Curves a - e correspond to a successive displacement of the p-n junction from the GaP region toward the GaAs region.

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L 8640-65
ACCESSION NR: AP4044941

ENCLOSURE: 02

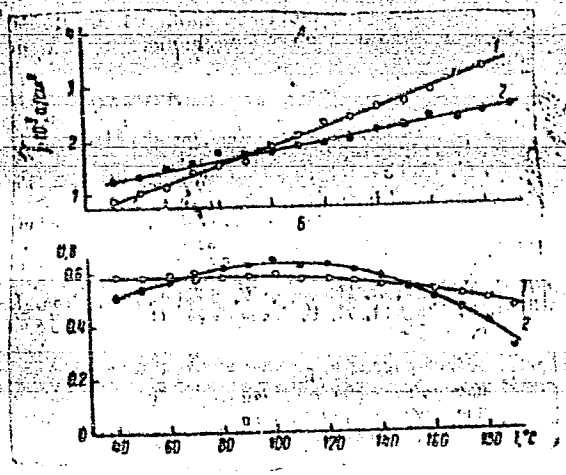

Fig. 2. Temperature dependence of short-circuit photocurrent and of open-circuit voltage (A and B, respectively) for photocells 1 and 2

Source power - 80 mw/cm^2.

Card 5/5

L 60976-65 EWA(h)/EWP(1)/EWT(m)/EWP(b)/T/EWP(t) Pz-6/Peb IJP(c)
AT/JD/JG

ACCESSION NR: AP5016404 UR/0120/65/000/003/0232/0233
621.383.5

AUTHOR: Kagan, M.B.; Landsman, A.P.; Chernov, Ya.I. 34 33 6

TITLE: Photoelement with extended spectral sensitivity

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1965, 232-233

TOPIC TAGS: photoelement, spectral sensitivity, semiconductor, gallium phosphide, gallium arsenide, p n junction

ABSTRACT: The feasibility of a spectral sensitivity correction in photoelements operating in the 0.45-0.85 μ range without the use of photofilters or reductions in spectral sensitivity was discussed earlier by E.D. Jackson (Trans. Conf. on the Use Solar En., 1955, 5, 126) and T. Wolf (Proc. IRE, 1960, 48, 1246). The method is based on p-n junction semiconductor photoelements which contain variable-width forbidden bands. The present article reports on such a GaP-GaAs system (electron concentration $1\text{-}5\cdot10^{17}$ cm^{-3}, electron mobility 3000 cm^2/sec at room temperature) within which, during the diffusion of P from the vapor phase, there appears a surface layer of gallium phosphide together with a thin GaP to GaAs transition region corresponding to a forbidden zone width change from 2.25 to 1.35 eV (at room temperature). The total thickness of the superposed layers is 5-7 μ. The electron-

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L 60976-65
ACCESSION NR: AP5016404

hole transitions are produced by subsequent Zn diffusion (see, e.g., D.N. Nasledov, B.V. Tsarenkov, Fiz. tv. tela, 1959, sb. 1, 9, 1467). The spectral sensitivity of the element is shown in Fig. 1 of the Enclosure. Load characteristics are also given. Orig. art. has: 2 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka, Moscow (All-Union Scientific Research Institute for Current Sources)

SUBMITTED: 30Mar64 ENCL: 01 SUB CODE: EC

NO REF SOV: 002 OTHER: 002

Card 2/3

L 60976-65
ACCESSION NR: AP5016404 ENCLOSURE: 01

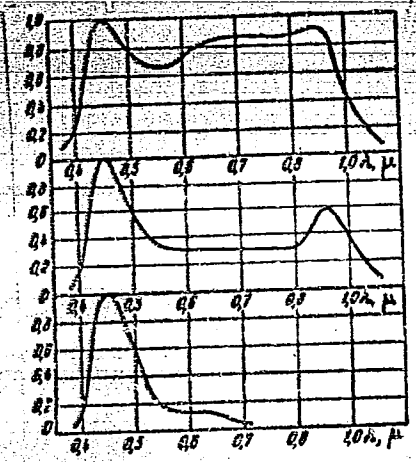

Figure 1. Spectral sensitivity of photoelements with various depths of p-n transition site: a - transition near the surface of the GaP layer; b, c - transition within the GaP-GaAs transition layer.

Card 3/3

L 6337-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACCESSION NR: AP5019882 UR/0181/65/007/008/2538/2539

AUTHOR: Gutkin, A. A.; Kagan, M. B.; Sedov, V. Ye.; Chernov, Ya. I.

TITLE: Effect of orientation of GaAs crystals on the depth and photoelectric properties of diffusion pn junctions

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2538-2539

TOPIC TAGS: gallium arsenide, pn junction, zinc, photoelectric cell, spectral distribution, photosensitivity

ABSTRACT: In view of some contradiction in earlier results (M. T. Minamoto and H. T. Malafi, J. Appl. Phys. v. 34, 1876, 1963) the authors have investigated the influence of orientation on the rate of diffusion of zinc by producing deep p-n junctions in plates having the same orientations as used in the preparation of photocells. The spectral distributions of the photosensitivity at photon energies 1.3--3 ev, of diffusion GaAs photocells which the authors produced under identical conditions, turned out to be practically the same, in spite of the fact that earlier results indicated that the position and form of the p-n junction should depend on the concentration and distribution of the dislocation. The initial material was single-crystal GaAs of n-type with electron density (2--3) x 10^{17} cm^{-3} and mobility 3500--4000 $cm^2 v^{-1} sec^{-1}$ grown horizontally by the Bridgman method.

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L 6337-66

ACCESSION NR: AP5019882

The treatment of the crystals is described. The results show that the thickness of the p-layer, and consequently the diffusion coefficient of the zinc, does not depend on the orientation. Addition of arsenic into the ampoule greatly reduces the diffusion coefficient of zinc. This result agrees with that of L. J. Vieland (J. Phys. Chem. Sol. v. 21, 318, 1961). Orig. art. has: 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute AN SSSR)

SUBMITTED: 20Mar65 ENCL: 00 SUB CODE: SS

NR REF SOV: 001 OTHER: 005

BC

Card 2/2

ACC NR: AP6007743 SOURCE CODE: UR/0293/66/004/001/0128/0136

AUTHOR: Kagan, M. B.; Landsman, A. P.; Chernov, Ya. I.

61
60
B

ORG: none

TITLE: Analysis of spectral and thermal characteristics of photoelectric converters and the selection of effective areas of their application

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 1, 1966, 128-136

TOPIC TAGS: solar cell, photoelectric cell, gallium arsenide, silicon

ABSTRACT: The spectral and thermal characteristics of GaAs and GaAs—GaP energy converters were studied and compared with those made of Si in order to determine the most advantageous fields of application of the respective materials as photovoltaic sources of space power. The fabrication procedures and the basic parameters of the samples used in the experiments were described in earlier papers (Gutkin, A. A., D. N. Nasledov, V. Ye. Sedov, and B. V. Tsarenkov, FTT, 4, 9, 1962, 2338; Kagan, M. B., and A. P. Landsman, Ispol'zovaniye solnechnoy energii v narodnom khozyaystve, Izd-vo "Nauka," 965, p. 53; Kagan, M. B., A. P. Landsman, and Ya. I. Chernov, FTT, 6, 9, 1964, 2700). The effective area of the investigated GaAs cells was 1—1.5 cm^2,

Card 1/2 UDC: 621.383.5

L 21268-66
ACC NR: AP6007743

and their efficiency at 20C was 7—9%; the efficiency of the variable-gap GaAs—GaP cells reached 6—7% at 200C. The measurements showed that while Si solar cells still appear to be the most suitable for the temperature range of +20—+80C and at normal solar illumination, at higher temperatures GaAs offers several advantages. The authors recommend the use of GaAs in the temperature range of +80—180C and in conjunction with solar concentrators. According to their calculations, a solar flux concentration by a factor of 4—6 can be achieved without the use of a cooling system. Variable-gap GaAs—GaP solar cells are recommended for use at temperatures above +200C. These cells are said to be able to withstand a solar flux concentration by a factor of 10—20 without the necessity of cooling. Orig. art. has: 6 figures, 2 tables, and 2 formulas. [ZL]

SUB CODE: 10/ SUBM DATE: 29Dec64/ ORIG REF: 007/ OTH REF: 011
ATD PRESS: 4216

Card 2/2 dda

L 08129-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6033579 SOURCE CODE: UR/0181/66/008/010/3097/3099

AUTHOR: Gutkin, A. A.; Kagan, M. B.; Magerramov, E. M.; Chernov, Ya. I.; Gutkin, A. A.; Kagan, M. B.; Magerramov, E. M.; Chernov, Ya. I.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR); All-Union Scientific-Reseach Institute of Current Sources, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka)

63
60
B

TITLE: Spectral characteristics of GaP--GaAs photocells in the photon energy region up to 5.4 ev

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3097-3099

TOPIC TAGS: gallium arsenide, gallium phosphide, gallium optic material, pn junction, photoelectric cell, photosensitivity

ABSTRACT: This is a continuation of earlier work (Kosmicheskiye issledovaniya, IV, 128, 1966 and preceding papers) where the possibilities of GaP--GaAs p-n junctions were first revealed and studied. The present paper describes investigations of the photosensitivity of junctions prepared by diffusion of zinc in a GaAs plate in which a region of variable composition $GaP_xAs_{(1-x)}$ was produced beforehand by heating in phosphorus vapor. The preparation procedure and some properties of such a junction were described earlier. The illuminated surface was subjected to various degrees of

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L 08129-67

ACC NR: AP6033579 3

etching. The tests consisted of plotting the photocurrent spectra and the spectrum of the diffuse reflection from the surface. X-ray analysis of the junction structure, and the presence of a peak near 3.6 ev, reveal that the surface layer of the photocell contains not less than 90% of GaP and consequently its photosensitivity spectrum is governed by the band structure of GaP. Comparison of the reflection and photosensitivity spectra shows that the photocurrent per incident absorbed photon is constant (at $\hbar\omega \approx 2.5$--4.6 ev) and then drops off slightly towards 5.4 ev. This is also confirms the GaP-type band structure, which precludes any possible increase of the quantum yield for photons with energy lower than ~ 5.2 ev, when the internal photoeffect and impact ionization come into play. The fact that the quantum yield remains constant over a wide range of photon energies extending over different parts of the Brilluoin zone shows that the minority nonequilibrium carriers (electrons) excited by the photons in different parts of the conduction band have time to go over to the equilibrium state at room temperature within a time shorter than the carrier lifetime ($\leq 10^{-9}$ sec). Consequently the drop in photosensitivity in the 2.6--3.5 ev region. which decreases strongly when the cell surface is etched, may be due to an increased role of surface recombination with increasing absorption coefficient, and not to a decrease in lifetime. The authors thank A. S. Toporets, A. V. Sheklein, and N. B. Rekant for measuring the diffuse-reflection spectra. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 13Apr66/ ORIG REF: 007/ OTH REF: 005/

ATD PRESS: 5102

Card 2/2 nst

L 08129-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6033579 SOURCE CODE: UR/0181/66/008/010/3097/3099

AUTHOR: Gutkin, A. A.; Kagan, M. B.; Magerramov, E. M.; Chernov, Ya. I.; Gutkin, A. A.; Kagan, M. B.; Magerramov, E. M.; Chernov, Ya. I.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR); All-Union Scientific-Research Institute of Current Sources, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka)

TITLE: Spectral characteristics of GaP—GaAs photocells in the photon energy region up to 5.4 ev

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3097-3099

TOPIC TAGS: gallium arsenide, gallium phosphide, gallium optic material, pn junction, photoelectric cell, photosensitivity

ABSTRACT: This is a continuation of earlier work (Kosmicheskiye issledovaniya, IV, 128, 1966 and preceding papers) where the possibilities of GaP—GaAs p-n junctions were first revealed and studied. The present paper describes investigations of the photosensitivity of junctions prepared by diffusion of zinc in a GaAs plate in which a region of variable composition $GaP_xAs_{(1-x)}$ was produced beforehand by heating in phosphorus vapor. The preparation procedure and some properties of such a junction were described earlier. The illuminated surface was subjected to various degrees of

Card 1/2

L 08129-67

ACC NR: AP6033579 3

etching. The tests consisted of plotting the photocurrent spectra and the spectrum of the diffuse reflection from the surface. X-ray analysis of the junction structure, and the presence of a peak near 3.6 ev, reveal that the surface layer of the photocell contains not less than 90% of GaP and consequently its photosensitivity spectrum is governed by the band structure of GaP. Comparison of the reflection and photosensitivity spectra shows that the photocurrent per incident absorbed photon is constant (at $\hbar\omega \approx 2.5$—4.6 ev) and then drops off slightly towards 5.4 ev. This is also confirms the GaP-type band structure, which precludes any possible increase of the quantum yield for photons with energy lower than ~ 5.2 ev, when the internal photoeffect and impact ionization come into play. The fact that the quantum yield remains constant over a wide range of photon energies extending over different parts of the Brilluoin zone shows that the minority nonequilibrium carriers (electrons) excited by the photons in different parts of the conduction band have time to go over to the equilibrium state at room temperature within a time shorter than the carrier lifetime ($\leq 10^{-9}$ sec). Consequently the drop in photosensitivity in the 2.6—3.5 ev region, which decreases strongly when the cell surface is etched, may be due to an increased role of surface recombination with increasing absorption coefficient, and not to a decrease in lifetime. The authors thank A. S. Toporets, A. V. Sheklein, and M. B. Rekant for measuring the diffuse-reflection spectra. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 13Apr66/ ORIG REF: 007/ OTH REF: 005/
ATD PRESS: 5102

Card 2/2 nst

VOROB'YEV, Vasiliy Aleksandrovich, zasl. deyatel' nauki i tekhniki, prof.; KOROVNIKOVA, Vera Vasil'yevna, kand. tekhn. nauk; FEDOSEYEV, Georgiy Petrovich, starshiy prepodavatel'; CHERNOV, Ye., red.; USTINOVA, S., tekhn. red.

[Plastic building materials] Stroitel'nye materialy iz plasticheskikh mass. [By] V.A.Vorob'ev, V.V.Korovnikova, G.P. Fedoseev. Moskva, Mosk. rabochii, 1962. 179 p. (MIRA 16:3)

(Building materials) (Plastics)

CHERNOV, Ye. F. (Alma-Ata)

Caudate appendix in a child. Khirurgiia no.9:74 S '54. (MLRA 7:12)
(SPINE, abnormalities,
caudate appendix)
(ABNORMALITIES,
caudate spinal appendix)

CHERNOV, Ye. F.

"Epulis"(Clinical-Morphological Investigation)." Cand Med Sci, Kazakh State Medical Inst imeni V. M. Molotov, Alma-Ata, 1955. (KL, No 10, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

CHERNOV, Ye.F., kand.med.nauk

Treatment of ankylosis of the temporomandibular joint. Stomatologiia 38 no.5:29-31 S-O '59. (MIRA 13:3)

1. Iz kafedry gospital'noy khirurgii (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent N.S. Narodetskiy) Kazakhskogo meditsinskogo instituta (direktor - prof. I.S. Koryakin) i Alma-Atinskoy ob"yedinennoy gorodskoy klinicheskoy bol'nitsy (glavnyy vrach A.Yu. Etlina).
(TEMPOROMANDIBULAR JOINT--ANKYLOSIS)

TRUSHKIN, Vasiliy Polikarpovich; CHERNOV, Ye., red.; KUZNETSOVA, A., tekhn. red.

[Painting of articles in an electric field]Okraska izdelii v elektricheskom pole. Moskva, Mosk. rabochii, 1962. 47 p. (MIRA 15:8)

(Spray painting, Electrostatic)

AVRORIN, N.A.; KUZENEVA, O.I.; ORLOVA, N.I.; POYARKOVA, A.I.; SEMENOVA-TYAN-SHANSKAYA, N.Z.; CHERNOV, Ye.G.; SHLYAKOV, R.N.; YUZEPCHUK, S.V. [deceased]; ARONS, R.A., tekhn.red.

[Flora of Murmansk Province] Flora Murmanskoi oblasti. Moskva. No.4. 1959. 393 p. (MIRA 12:8)

1. Akademiya nauk SSSR. Kol'skiy filial, Kirovsk.
(Murmansk Province--Dicotyledons)

CHERNOV, Ye. G.

GORODKOV, B.N., professor; KUZNETSOVA, O.I.; ORLOVA, N.I.; POYARKOVA, A.I.; SELIVANOVA-GORODKOVA, Ye.A.; CHERNOV, Ye.G.; SHLYAKOVA, Ye.V.; GOLOVNIN, M.I., redaktor; KROL, D.M., tekhnicheskiy redaktor

[Flora of Murmansk Province] Flora Murmanskoi oblasti. Moskva, Izd-vo Akad. nauk SSSR, No.1. 1953 254 p., maps. No.2. 1954. 238 p., maps. (MLRA 8:7)

1. Polyarno-al'piyskiy botanicheskiy sad.
(Murmansk Province--Botany)

CHERNOV, Ye.G.

KUZENEVA, O.I.; CHERNOV, Ye.G.

Description of the family Cyperaceae, table for indentifying genera of the Cyperaceae family, and the genus Carex. Genera: Eriophorum, Trichophorum, Scirpus, Bolboschoenus, Schoenoplectus, Blysmus, Eleocharis, Schoenus, Rhyncospora, Kobresia. Flora Murm.obl. no.2:11-142 '54. (MLRA 7:10)

(Murmansk Province--Sedges) (Sedges--Murmansk Province)

AVRORIN, N.A.; KUZENEVA, O.I.; ORLOVA, N.I.; PIS'YAUKOVA, V.V.; POYARKOVA, A.I.; ZEMENOVA-TYAN-SHANSKAYA, N.Z.; CHERNOV, Ye.G.; SHLYAKOV, R.N.; TVERITINOVA, K.S., tekhnicheskiy redaktor

[Flora of Murmansk Province] Flora Murmanskoi oblasti. Moskva, Izd-vo Akademii nauk SSSR. No.3. 1956. 449 p. (MLRA 9:11)
(Murmansk Province--Botany)

AVRORIN, N.A.; CHERNOV, Ye. G.; SHMATOK, I.D.

Botanical investigations in Murmansk Province. Izv. Kar. i Kol' fil. AN SSSR no. 1:72-83 '57. (MIRA 11:7)

1. Polyarno-al'piyskiy botanicheskiy sad Kol'skogo filiala AN SSSR.

(Murmansk Province--Botany)

L 24040-66

ACC NR: AP6011278 SOURCE CODE: UR/0413/66/000/006/0140/0140

19
B

INVENTOR: Semenov, V. S.; Chernov, Ye. G.

ORG: none

TITLE: Device for remote conversion of deflection angle of instrument indicator into a number of pulses. Class 74, No. 180116

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 140

TOPIC TAGS: remote control converter, electromagnetic pulses

ABSTRACT: This Author Certificate has been issued for a device for the remote conversion of the deflection angle of an instrument indicator into a number of pulses. It consists of a scale, a rachet wheel mounted on a hollow axle through which the pin of the indicator passes, and an electromagnet. The winding of the electromagnet receives pulses from a feed line passing through diodes. To improve the reliability of the device, it has two photoresistors with light sources connected into the power circuit which feeds the electromagnet winding. One photoresistor is at the beginning of the scale and the other is mounted on the instrument-indicator pin and moves with it. A small flag is attached to the rachet-wheel axle. As pulsed power is applied to the electromagnet winding, it moves and breaks the light current from the light source to the photoresistor. [SA]

2

SUB CODE: 14, 13, 09/ SUBM DATE: 27May64/ UDC: 621.3.083.72

Card 1/1 dla

CHERNOV, YE. I

"Investigation of the Low-Power Servomechanism Using Alternating Current." Thesis for degree of Cand Technical Sci. Sub 28 Dec 50, Inst of Automatics and Telemechanics Acad Sci USSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950

SOV/124-58-5-5001

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 9 (USSR)

AUTHOR: Chernov, Ye.I.

TITLE: On the Use of the Convolution Theorem in the Analysis of Automatic-control Systems Having Variable Coefficients (O primenenii teoremy svertki k analizu sistem avtomaticheskogo regulirovaniya s peremennymi koeffitsiyientami)

PERIODICAL: Tr. 2-go Vses. soveshch. po teorii avtomat. regulirovaniya. Vol 2. Moscow-Leningrad, Izd-vo AN SSSR, 1955, pp 386-398 Comments pp 399-400)

ABSTRACT: It is shown that the convolution method is a generalized method of successive approximations; the author points out the advantages of this method over the series method, since this method does not require that the numerical values of the equation's coefficients be known, and it affords the possibility of setting up the solution in a generic form. If the results are to be very precise, both the author's method and the series method will prove cumbersome and laborious. An account is given of the Zade and Kirby methods for solving differential equations with variable coefficients; the deficiencies of the

Card 1/2

On the Use of the (cont.)

Zade method are indicated, also the deficiencies and advantages of the Kirby method and of the method used by the author. There are typographical errors in the article.

A.S. Tkachenko

1. Control systems--Mathematical analysis 2. Mathematics--Applications

CHERNOV, YE.I.

Vsesoyuznoye ob"yedinennoye soveshchaniye po avtomatizatsii proizvodstvennykh protsessov v mashinostroyenii i avtomatizirovannomu elektroprivodu v promyshlennosti. 3d, Moscow, 1959

Elektroprivod i avtomatizatsiya promyshlennykh ustanovok; trudy soveshchaniya (Electric Drive and Automation in Industrial Systems; Transactions of the Conference) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirotin, and M.G. Chilikin; Eds.: I.I. Sud, and E.F. Silayev; Tech. Eds.: K.P. Voronin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

COVERAGE: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Gosplan SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvennyy Komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Building) and the Natsional'nyy Komitet SSSR po avtomaticheskomu upravleniyu (USSR National Committee on Automatic Controls) and prepared by the Nauchno-tekhnicheskiy komitet po avtomatizirovannomu elektroprivodu (Scientific and Technical Committee on Automated Electric Drives), the MEI (Moscow Institute of Energetics), the VNIIEM, the IAT (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Komissiya po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Commission on the Technology of Machine Building of the Institute of Science of Machines of the Academy of Sciences USSR). It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic controls of industrial mechanisms used in various branches of industry. Basic problems of automated electric drive and their solution are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to noncontact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considerably abbreviated; those which have appeared in volume V of NII EP transactions or in the journal "Elektrichestvo" are marked with an asterisk. No personalities are mentioned. References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

CHERNOV, Ye.I. (Moskva)

Replacement of shunting motors in power-type servosystems with compound ones. Avtom. i telem. 25 no.1:131-135 Ja '64. (MIRA 17:2)

17(8) SOV/177-58-7-27/28

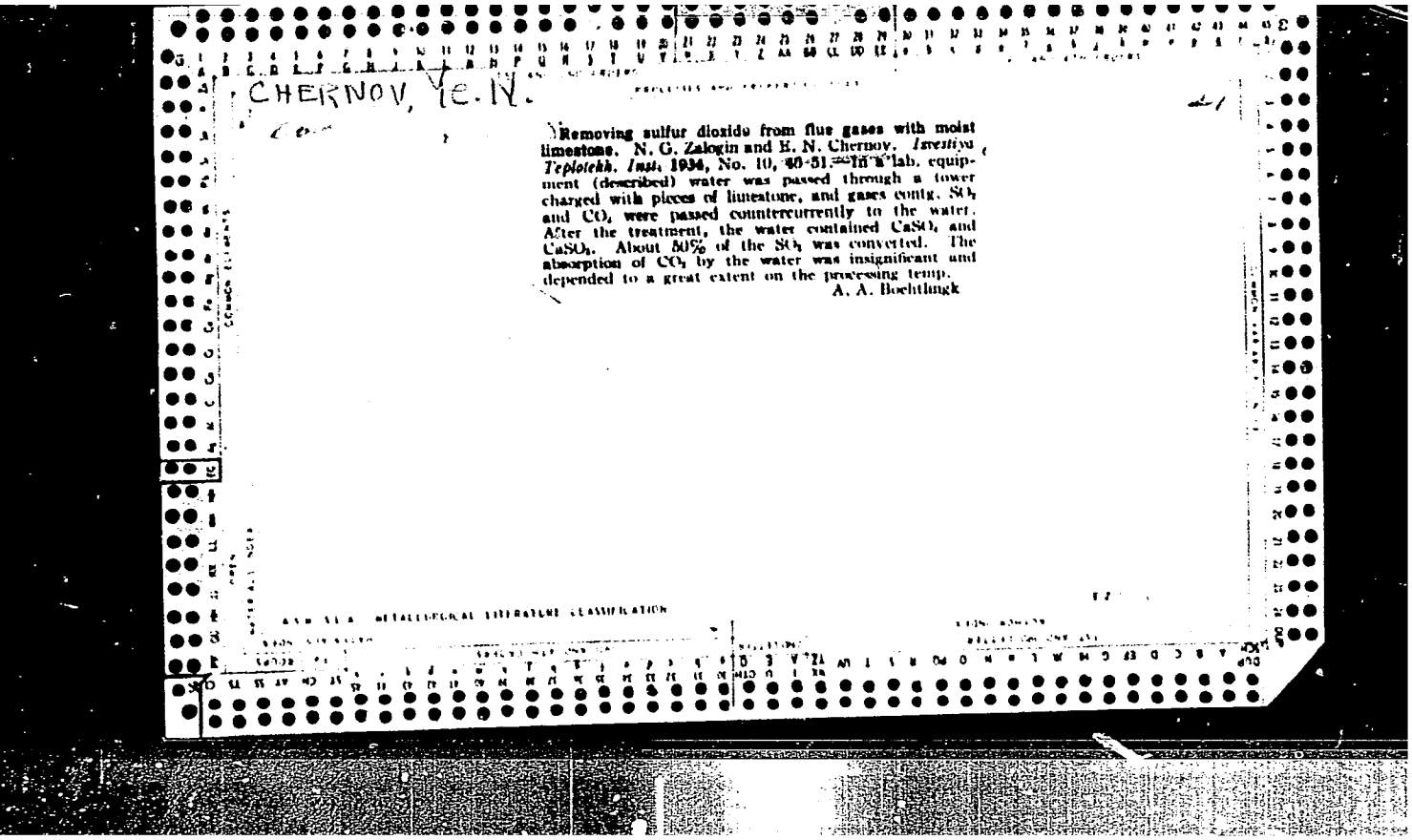
AUTHORS: Chertoritskiy, A.P., Colonel of the Medical Corps; Chernov, Ye.I., Major of the Medical Corps

TITLE: A Portable System for Inhaling Antibiotics and Other Remedies With Oxygen

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, p 95 (USSR)

ABSTRACT: The author describes a portable inhaling apparatus which is being used in therapeutic departments of district hospitals in treating patients suffering from acute and chronic diseases of the upper respiratory passages and the lungs. There is 1 diagram.

Card 1/1



CHERNOV, Ye.N.

Removing sulfur dioxide from flue gases with moist limestone. N. G. Zalogin and E. N. Chernov. *Izvestiya Teplotekh. Inst.* **1934**, No. 10, 46-51.—In a lab. equipment (described) water was passed through a tower charged with pieces of limestone, and gases contg. SO_2 and CO_2 were passed countercurrently to the water. After the treatment, the water contained $CaSO_4$ and $CaSO_3$. About 50% of the SO_2 was converted. The absorption of CO_2 by the water was insignificant and depended to a great extent on the processing temp.
A. A. Boehtlingk

CHERNOV, Ye.N.

Higher courses in light industry. Tekst.prom.16 no.1:23-25 Ja '56. (MLRA 9:4)

1.Zamestitel' direktora Vysshikh kursov legkoy promyshlennosti.
(Moscow--Technical education)

CHERNOV, Ye.N., aspirant.

Sorption of steam by unbleached and dyed cotton fiber. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.1:17-26 '58. (MIRA 11:5)

1. Moskovskiy tekstil'nyy institut.
(Dyes and dyeing—Cotton) (Cotton—Testing)

CHERNOV, Ye.N.

Modification of the mechanical properties of cotton during dyeing.
Izv.vys.ucheb.zav.; tekh.tekst.prom. no.3:14-23 '60.
(MIRA 13:7)

1. Moskovskiy tekstil'nyy institut.
(Dyes and dyeing--Cotton)

LANDYSHEVA, V.A.; KALININA, N.G.; RADCHENKO, G.O.; KUKIN, G.N.; CHERNOV, Ye.N.

Surface acetylated cotton. Report No.1. V.A.Landysheva and others. Izv.vys.ucheb.zav.; tekh.tekst.prom. no.3:50-56 '63. (MIRA 16:9)

1. Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol (for Landysheva, Kalinina, Radchenko). 2. Moskovskiy tekstil'nyy institut (for Kukin, Chernov).
(Cotton)
(Acetylation)

LANDYSHEVA, V.A.; RADCHENKO, G.O.; SPIRINA, L.S.; CHERNOV, Ye.N.

Development of the process of surface acetylation of textile fibers. Zhur.prikl. khim. 37 no. 5:1087-1092 My '64. (MIRA 17:7)

1. Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol.

KHVOSTOV, V.S., dotsent; CHERNOV, Ye.T., inzh.

Characteristics of an electric arc between adjacent collector plates.
Trudy MIIT no.205:76-80 '65. (MIRA 18:9)

CHERNOV, Ye.T., inzh.

Determination of the resistance of motion of the UK 25/D track laying crane. Trudy MIIT no.205:123-126 '65. (MIRA 18:9)

CHERNOV, Yu.

"Fourth All-Union Radio-Telephone Contest of Short-Wave Operators of the All-Union Volunteer Society for Assistance to the Army, Aviation, and Navy," Radio, No.4, 1952

CHERNOV, Yu., inzh.

Operate the "Primorets" glider correctly. Kryl.rod. 11 no.11:18-20 N '60. (MIRA 13:10)

(Gliders (Aeronautics))

Chernov, Yu. A.

AID P - 4237

Subject : USSR/Radio Engineering

Card 1/1 Pub. 90 - 3/8

Author : Chernov, Yu. A.

Title : Nonlinear distortions and stability of reflex circuits

Periodical : Radiotekhnika, v. 11, no. 1, 17-31, Ja 1956

Abstract : The author analyzes reflex circuits from the point of view of the nonlinearities they introduce and attempts to find solutions in which nonlinear distortion would be minimized and the best stability conditions obtained. He concludes, on the basis of mathematical analysis of single- and double-tube reflex circuits in which he uses pentodes, that such circuits can be very efficient and permit reducing considerably the number of tubes without impairing the electric characteristics of the receivers. Seven diagrams.

Institution : None

Submitted : D 16, 1955

CHERNOV, Yu.A.

Tectonics of the Kotera-Muya watershed (northern Transbaikalia).
Izv. Sib. otd. AN SSSR no.2:21-28 '58. (MIRA 11:9)

1.Vostochno-Sibirskiy filial AN SSSR.
(Kotera Valley--Geology, Structural)
(Muya Valley--Geology, Structural)

Chernov, Yu A.

9(6) SOV/19-59-11-169/277

AUTHORS: Khokhlov, A.F., Antipov, Ye.F., Ol'man, Ye.V., Logunov, B.S., Semenov, L.I., Moskvar, K.B., Chernov, Yu.A., Antonov, S.I., and Rumyantsev, S.I.

TITLE: A Gyroscopic Device

PERIODICAL: Byulleten' izobretseniy, 1959, Nr 11, pp 40-41 (USSR)

ABSTRACT: Class 42c, 35_{10}. Nr 120343 (603431/26 of 5 July 1958). 1) A gyroscopic device for indicating the course of sea vessels and airplanes, with selective operation as a gyrocompass, a directional gyro, or a gyro-magnetic compass. The device includes a spherical gyro-motor, a follow-up gyrosphere, and external universal joint with a correcting balance, servounits for automatic control and reading transmission, and a computer for compensating high-speed and ballistic deviations and carry-over velocities. To dampen the free oscillations of the gyroscope, the correcting balance is electrically coupled with the servodrive

Card 1/2

A Gyroscopic Device

of the vertical axle of the gyroscope. 2) To simplify the design of the device, the springs linking the spherical gyro-motor with the follow-up sphere are also used for transmitting centering efforts and moments to the gyroscope.

Chukhrov, Yu. A.

3(3) PHASE I BOOK EXPLOITATION SOV/3223

Akademiya nauk SSSR. Kompleksnaya antarkticheskaya ekspeditsiya

Klimat Antarktiki (Climate of the Antarctic) Moscow, Geografgiz, 1959. 285 p. (Series: Its: Trudy; Meteorologiya i klimatologiya) Errata slip inserted. 4,000 copies printed.

Ed.: S. M. Kuskov; Tech. Ed.: S. M. Koshelev; Editorial Board: V. F. Burkhanov, B. L. Dzerdzeyevskiy, Kh. P. Pogosyan, and G. M. Tauber.

PURPOSE: This book is intended for meteorologists and climatologists. It will be of interest to all earth scientists concerned with the Antarctic region.

COVERAGE: This book contains 18 articles on the weather and climate of Antarctica. Articles represent the generalized results of processing data obtained by the Soviets during their expeditions to the Antarctic, 1955-1958. Individual authors have attempted to clarify and unify previously divergent views on Antarctic meteorological processes (zonal circulation, temperature distributions, cyclonic and anticyclonic movement, etc.). No personalities are mentioned. References accompany individual articles.

TABLE OF CONTENTS:

BELICHENKO, V.G.; CHERNOV, Yu.A.; ZHURAVLEVA, I.T.

Lower Cambrian stratigraphy of the Kydymit-Zaza-Kholoy interfluve (Vitim Plateau). Geol. i geofiz. no.6:85-93 '60. (MIRA 13:9)

1. Vostochno-Sibirskiy geologicheskiy institut Sibirskogo otdeleniya AN SSSR.

(Vitim Plateau--Geology, Stratigraphic)

BELICHENKO, V.G.; KHRENOV, P.M.; CHERNOV, Yu.A.

Late molasses of the early Caledonian geosyncline in the inner part of the Baikal mountain area. Dokl.AN SSSR 138 no.6:1405-1408 Je '61. (MIRA 14:6)

1. Vostochno-Sibirskiy geologicheskiy institut Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom N.M.Strakhovym.
(Vitim Plateau--Geology, Stratigraphic)

BELICHENKO, Valentina Georgiyevna; KOMAROV, Yuriy Vasil'yevich; MUSIN, Yuriy Vasil'yevich; KHRENOV, Petr Mikhaylovich; CHERNOV, Yuriy Alekseyevich; FLORENSOV, N.A., otv.red.; SOLODOV, N.A., red.izd-va; NOVICHKOVA, N.D., tekhn.red.

[Outline of the geology and petrography of the southern margin of the Vitim Plateau (northwestern Transbaikalia)] Geologo-petrograficheskii ocherk iuzhnoi okrainy Vitimskogo ploskogor'ia (Severo-Zapadnoe Zabaikal'e). Moskva, Izd-vo Akad.nauk SSSR. 1962. 166 p. (Akademiia nauk SSSR. Sibirskoe otdelenie. Vostochno-Sibirskii geologicheskii institut. Trudy, no.8). (MIRA 16:2)

(Vitim Plateau--Geology)

CHERNOV, Yu.A.

Udino-Vitim structural-facies zone of the Early Caledonian geosyncline of the Baikal mountainous country. Geol. i geofiz. no.5:115-117 '63. (MIRA 16:8)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR, Irkutsk.
(Baikal lake region—Geology, Structural)
(Baikal lake region—Ore deposits)

KHRENOV, P.M.; CHERNOV, Yu.A.; SHERMAN, S.I.

Conference of young geologists of the Institute of the Earth's Crust. Geol.i geofiz. no.7:117-119 '63. (MIRA 16:10)

CHERNOV, Yu.A.

History of the geological development of the Udino-Vitim region in the Paleozoic (western Transbaikalia). Izv. AN SSSR. Ser.geol. 28 no.6:43-57 Je '63. (MIRA 16:8)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR, Irkutsk.
(Transbaikalia—Geology, Stratigraphic)

L 15791-65 EWT(d)/FSS-2/EEC(k)-2/EEC-4/EEC(t) Pn-4/Pp-4/Pac-4/Pg-4/Pt-10/Pl-4
ACCESSION NR: AP4048922 ESD(c)/ESD(t)/ASD(a)-5 WS S/0286/64/000/020/0028/0028

AUTHORS: Kosikov, K. M.; Chernov, Yu. A.; Khrapko, I. K.; Vul'fov, Yu. D.; Gaponov, V. M.; Zakharov, V. A.

TITLE: A method of short-wave radio communication through the polar zone. Class 21, No. 165781

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1964, 28

TOPIC TAGS: short wave propagation, radio communication

ABSTRACT: This Author's Certificate presents a method of short-wave radio communication through the polar zone by using at the receiving station double or triple reception with summation of signals or with automatic selection. To increase the stability of the radio communication, the maximum of the directional diagram of the receiving antenna is oriented with a deviation from the azimuth within limits up to 120°.

ASSOCIATION: none

SUBMITTED: 04Jan63

SUB CODE: EC NO REF SOV: 000 ENCL: 00

Card 1/1 OTHER: 000

CHERNOV, Yu.A., inzh.

Equalizing currents in a contact network during parallel operation of a.c. traction substations. Trudy MIIT no.199:35-51 '65.

Effect of the inequality of transformation coefficients of substations on the magnitude of equalizing currents in an a.c. contact network. Ibid.:226-232 (MIRA 18:8)

L 07912-67 EWT(1) GW

ACC NR: AP6033172 SOURCE CODE: UR/0033/66/043/005/1064/1073

31
B

AUTHOR: Chernov, Yu. A.

ORG: none

TITLE: Relation between the mass distribution of meteoric bodies and the autocorrelation function of the disintegrated planetary surface

SOURCE: Astronomicheskiy zhurnal, v. 43, no. 5, 1966, 1064-1073

TOPIC TAGS: autocorrelation function, similarity theory, meteor observation, mass distribution, planetary surface, meteor stream

ABSTRACT: A relation is established between the parameters of the autocorrelation function of the surface and the parameter s of a meteoric stream. On the basis of the similarity theory, an expression is obtained for the spectral density of squares of the decomposition amplitudes of the surface on the assumption that the surface is composed of similar craters. It is found that the parameter of distribution s of the meteoric stream, which causes the planetary surface to disintegrate, should not exceed 2 2/3. In the case when the main part of the autocorrelation function of the

Card 1/2 UDC: 523.531

L 07912-67
ACC NR: AP6033172

surface is close to an exponent or straight line, parameter s equals two in the mass distribution of meteoric bodies. Orig. art. has: 3 figures and 26 formulas. [Based on author's abstract]

SUB CODE: 03/ SUBM DATE: 25Dec65/ ORIG REF: 010/ OTH REF: 006/

Card 2/2 vmb

ACC NR: AP7006018 SOURCE CODE: UR/0203/66/006/005/0881/0888

AUTHOR: Chernov, Yu. A.

ORG: none

TITLE: Influence of the Earth's magnetic field on a backscattered sounding signal

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 881-888

TOPIC TAGS: earth magnetic field, signal to noise ratio

ABSTRACT: It is shown that in sounding by the backscattered signal method at nighttime the level of the extraordinary component is approximately equal to the ordinary component. In the daytime, when undeflecting absorption predominates, the ordinary component exceeds the extraordinary component. It is concluded from the analysis that if absorption Γ in one direction does not exceed 1.5 and the signal-to-noise ratio is > 0.2, the signal front corresponds to the lag of the ordinary component. It is shown that at nighttime both components should not differ significantly in level. Orig. art. has: 5 figures, 29 formulas and 1 table. [JPRS: 38,937]

SUB CODE: 09, 08 / SUBM DATE: 22Feb66 / ORIG REF: 003 / OTH REF: 011

Card 1/1 UDC: 550.383:550.388.2

0927 0 800

ACC NR: AP7002192 SOURCE CODE: UR/0203/66/006/006/1047/1050

AUTHOR: Chernov, Yu.A.

ORG: none

TITLE: Experimental check of the validity of the parabolic ionospheric model for oblique-incidence probing

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1047-1050

TOPIC TAGS: ionosphere, ionospheric propagation, ionospheric sounder, atmospheric model, ionospheric electron density, F layer

ABSTRACT:

The ionosphere was oblique-incidence probed at different times of the day to check the validity of the parabolic ionospheric model. Theoretical values of $p_{min}(x)$ (where p_{min} is the minimum group path and x the ratio of the working to the critical frequency) obtained from a spherical model of the ionosphere with a parabolic distribution of electron density with height, were compared with experimentally obtained values. The half-thickness of the F2 layer was taken to be 100 km. The experiments were conducted during the summers of 1962 and 1963; the number of sun spots during those periods was ~ 50 and 10 respectively. The probing was conducted in a southeasterly direction. The difference be-

Card 1/2 UDC: 550.388.2

ACC NR: AP7002192

tween various signal components in most cases could not be found because of the inadequate resolution of the equipment used (1 msec or 150 km). The position of the leading composite signal front was therefore established, and it was assumed to have been formed by an extraordinary component. Only received signals corresponding to an undisturbed F2 layer were chosen for the analysis. Experimental results were in good agreement with values calculated by using the parabolic model of the F2 layer with a half-thickness of 100 km. The height of the ionization maximum can be determined from a series of experiments if the critical frequency at the point of reflection is known. [IV]

SUB CODE: 04/ SUBM DATE: 22Feb66/ ORIG REF: 005/ OTH REF: 001
ATD PRESS: 5114

Card 2/2

ACC NR: AP7002204 SOURCE CODE: UR/0203/66/006/006/1118/1120

AUTHOR: Chernov, Yu. A.

ORG: none

TITLE: Number of return signals reflected from the F sub 2 layer during oblique-incidence backscatter sounding

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1118-1120

TOPIC TAGS: ionospheric ~~sounding~~ scatter, depolarization, F layer, signal scattering, atmospheric sounding, meteorologic radar

ABSTRACT: The possible types of oblique-incidence backscatter signals reflected from the F2 layer are investigated in order to facilitate decoding of oscillogram indicator patterns, and to study the depolarization of these signals. The number of backscatter signals for a given distance depends on the ratio of the working and critical frequencies, as well as on the absolute value of the critical frequency. Three types of signals are observed on the indicator screen when the working frequency is reduced from the maximum usable frequency (MUF) for one-hop transmission at a distance of ~3500 km via the F2 layer. The first type of signal

Card 1/3 UDC: 550.388.2

Table 1.

Type	Number and makeup of the signals			
I	1	2	3	4
	x	x; o	x; o; 2(xo)	x; o; 2(xo); (2(ox))x
II	-	—	2	4
			x; o	xo; x; ++
III	-	1	1	3
		x	xx	xx; o; ++
Total	1	2	6	11

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000308610001-2"

ACC NR: AP7002204

observed on the indicator screen, that which corresponds to maximum-distance single-hip transmission, is the extraordinary signal, which is stronger than the other type. As the frequency is lowered, this signal shifts its place on the screen and the ordinary signal component appears where the extraordinary signal had originally been. When the frequency is lowered further, a signal appears which corresponds to two-hop transmission. (It contains both the ordinary and extraordinary components). Two-hop transmission gives rise to three signals observable on the screen. Signals of the second type are observed when the transmission path follows at least three hops. They are characterized by an unequal number of hops in the forward and return directions. The third type of signal is characterized by depolarization during scatter and reflection; its strength is determined by the amount of depolarization. [WA-3] [BD]

SUB CODE: 08/7/ SUBM DATE: 12Apr66/ ATD PRESS 5114

Card 3/3

L 38735-66 EWT(d)/EWT(m)/EWP(k)/EWP(h)/T-2/EWP(w)/EWP(v) IJP(c) EM

ACC NR: AP6025671 SOURCE CODE: UR/0413/66/000/013/0144/0144

INVENTOR: Sosul'nikov, I. L.; Chernov, Yu. G.

44
B

ORG: none

TITLE: Device for controlling an aircraft-flap suspension mechanism. Class 62, No. 183596

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 144

TOPIC TAGS: aircraft actuating equipment, aircraft control equipment, aircraft wing, aircraft flap

ABSTRACT: An Author Certificate has been issued for a device for controlling an aircraft-flap suspension system, which consists of guide tracks and carriages

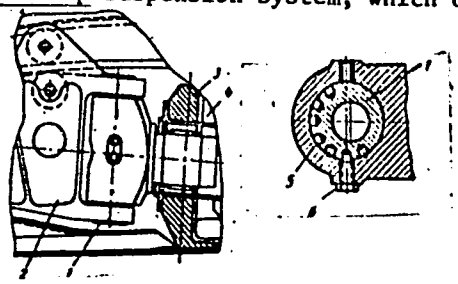


Fig. 1. Device for controlling an aircraft-flap suspension mechanism

1 - Eccentric shaft; 2 - carriage; 3 - longeron; 4 - flap; 5 - hole; 6 - screw.

Card 1/2 UDC: 629.135/138

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attached to the flaps (see Fig. 1). For greater reliability the shaft linking the carriage to the flap's longeron is graduated, with a cam in its center and a seat in its butt, which is intended for a wrench for turning the shaft. The shaft has a hole for a set screw which can be secured when the carriage and track are butted during the superposition of their longitudinal surfaces. Orig. art. has: 1 figure.
[KT]

SUB CODE: 01/ SUBM DATE: 23Jun65/ ATD PRESS: 5048

Card 2/2

CHERNOV, Yu.I.

Synanthropic dipterans of the Yugor Peninsula and Vaygach Island. Ent. oboz. 38 no.3:579-582 '59. (MIRA 13:1)

1.Kafedra zoologii Moskovskogo oblastnogo pedagogicheskogo instituta im. N.K. Krunskoy, Moskva.
(Yugor Peninsula--Flies) (Vaygach Island--Flies)

GRECHANYUK, N.M., podpolkovnik; DMITRIYEV, V.I., kand.istor.nauk, kapitan 2 ranga; KRINITSYN, F.S., kand.istor.nauk, polkovnik; CHERNOV, Yu.I., kapitan 3 ranga; LUPACH, V.S., red.; KONOVALOVA, Ye.K., tekhn.red.

[The Baltic Fleet; a historical sketch] Baltiiskii flot; istoricheskii ocherk. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 373 p. (MIRA 14:2)
(Russia--Navy)

CHERNOV, Yu.I.

Complex of synanthropous dipterans in the arctic tundras of Yakutia. Nauch. dokl. vys. shkoly; biol. nauki no.3:35-38 '61. (MIRA 14:7)

1. Rekomendovana kafedroy zoologii i Moskovskogo oblastnogo pedagogicheskogo instituta im. N.K.Krupskoy.
(ANABAR BAY REGION--DIPTERA)

CHERNOV, Yu.I.

Studying animal populations of soils in the Arctic tundras of Yakutia. Zool. zhur. 40 no.3:326-333 Mr '61. (MIRA 14:3)

1. Department of Zoology, Moscow Regional Pedagogical Institue.
(Anabar Bay region—Soil fauna)

CHERNOV, Yu.I.

Correlation between the nature of vegetation and the composition of the animal population in some types of tundras. Vop. ekol. 7: 199-201 '62. (MIRA 16:5)

1. Oblastnoy pedagogicheskiy institut imeni N.K.Krupskoy, Moskva. (Tundras)

CHERNOV, Yu.I.; USPENSKIY, S.M.

Role of insects in the nutrition of some Arctic birds. Biul. MOIP.Otd.biol. 67 no.4:26-31 Jl-Ag '62. (MIRA 15:10)
(ARCTIC REGIONS--BIRDS--FOOD) (INSECTS)

CHERNOV, Yu.I.

Depencence of the composition of the animal population of the soil and sod on the character of the vegetation in some types of tundras. Probl. Sev. no.8:254-267 '64.

(MIRA 17:11)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Krupskoy, kafedra zoologii.

CHERNOV, Yu.I.

Complex of synanthropic Diptera in the tundra zone of the U.S.S.R. Ent. oboz. 44 no.1:74-83 '65.

(MIRA 18:7)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K. Krupskoy, Moskva.

CHERNOV, Yu.I.

Some characteristics of the animal population in spotted tundras. Zool. zhur. 44 no.4:507-512 '65. (MIRA 18:6)

1. Kafedra zoologii Moskovskogo oblastnogo pedagogicheskogo instituta imeni Krupskoy.

CHERNOV, Yu.I.; SAVCHENKO, Ye.N.

Ecology and preimaginal phases of the development of the Arctic crane fly Tipula (Pterelachisus) carinifrons Holm. Zool. zhur. 44 no.5:777-779 '65. (MIRA 18:6)

1. Kafedra zoologii Moskovskogo oblastnogo pedagogicheskogo instituta i Institut zoologii AN UkrSSR, Kiyev.

CHERNOV, Yu.I.

AUTHOR: Yu.I. Chernov, Engineer, 128-58-6-15/17

TITLE: Advanced Technique and Efficient Equipment for Foundries (Liteynomu proizvodstvu peredovuyu tekhniku i sovershennuyu osnastku)

PERIODICAL: Liteynoye Proizvodstvo, 1958, Nr 6, p 32 (USSR)

ABSTRACT: The author makes critical remarks on the article "Basic Progress methods for Foundry Production" published in "Liteynoye Proizvodstvo", Nr 11, 1957. He states that the above article covers important and long-neglected problems which should have been treated much earlier, and necessitates further development. It is pointed out that almost all castings of over 3 to 5 tons are being produced manually. Experience shows, that sand-throwers are useful in molding heavy castings but in practice they are used very little. This is because of the lack of good crane equipment, as well as the design faults in the sand-throwers themselves, which the plants should eliminate but do not always have the necessary means. Therefore, sand-throwers are standing idle in many foundries, and resulting in frozen production means. Sand-throwers should be so equipped as to permit not only the mechanical filling of molds, but also the handling of mold boxes and the removal of the castings. Although the production of molding machines and sand-throwers is centralized, the production

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Advanced Technique and Efficient Equipment for Foundries 128-58-6-15/17

of centrifugal machines and die-casting machines is not, and therefore they are not standardized. There is no centralized production of foundry equipment (mold boxes, molding boards, etc.), and no plant shops (even at large plants) that produce foundry equipment. The author states that the foundry institutes and designing organizations should be provided with good production plants for testing and perfecting their machines.

AVAILABLE: Library of Congress

Card 2/2 1. Foundries-Operation 2. Foundries-USSR 3. Foundries-Equipment

18(5) SOV/128-59-3-19/31

AUTHOR: Chernov, Yu.I., Engineer

TITLE: Die-Casting of Complicated Shapes

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 3, pp 43-44 (USSR)

ABSTRACT: During the recent years at the electric steel plant for heavy macinery a new die casting mold for casts with complicated shapes to be poured from cast iron type S CH 15-32 has been introduced. Six drawings and two photos together with the description of the design of the components needed for the die casting method are given. This newly introduced die casting process allows to pour two each castings of complicated shapes at the same time and without further subsequent machining. At the same time this method leads to huge savings. In one table time and material savings are listed

Card 1/1

SOV/128-59-10-17/24

18(5)

AUTHOR: Chernov, Yu.I., Engineer

TITLE: Pouring Basin with a Partition Wall

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 10, pp 43-44 (USSR)

ABSTRACT: The author states that the existing types of pouring basins, according to GOST 2613-44, do not satisfy the demand to avoid slag getting into the mould. For this reason there are several foundries which use pouring basins with a partition wall. Fig.1 shows a pouring basin of this kind which is not difficult to produce. It is used in the Elektrostal'skiy zavod tyazhelogo mashinostroyeniya (Elektrostal' Factory of Heavy Machine Construction). This pouring basin is made of quartz sand with 6-7% soluble glas. Fig. 2 shows the core box which is used for the production of this pouring basin. There are 3 diagrams.

Card 1/1

CHERNOV, Yuriy Ivanovich; KIZILOV, Anatoliy Ivanovich; LAKSHIN, A.P., kand. tekhn. nauk, retsenzent; ZHUKOV, A.A., kand. tekhn. nauk, red.; IVANOVA, K.N., inzh., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Handbook on foundry equipment] Spravochnik po liteinoi osnastke. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 406 p. (MIRA 14:11)

(Foundries--Equipment and supplies)

CHERNOV, Yu.I.; DOLBENKO, Ye.T.; SHENKER, B.Z.; VASILEVSKIY, P.F., kand. tekhn.nauk, retsenzent

[Founding in the heavy machinery industry; an album] Izgotovlenie otlivok v tiazhelom mashinostroenii; al'bom. Moskva, Mashinostroenie, 1964. 154 p. (MIRA 17:12)

CHERNOV, Yu.I.

Determining the wall thickness of a hollow core. Lit. proizv. no.3:35 Mr '64. (MIRA 18:9)

CHERNOV, Yu.I.

Determining the optimal quantity of chaplets placed in a mold.
Lit. proizv. no.11:40-41 N '64. (MIRA 18:8)